

Switch ON the BSM
 File: H_FCP_SPI_BSMN.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to switch ON the Beam Steering Mechanism (BSM) and transition to BSM_ON mode

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

SPIRE is in REDY mode

End of Procedure

SPIRE is in BSM_ON mode

Reference File(s)

Input Command Sequences

Output Command Sequences

HFSBSMN

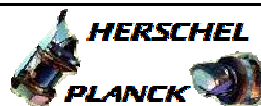
Referenced Displays

ANDs **GRDs** **SLDs**
 SA_6_559
 ZAZ08999
 SAC0_559
 SAJ0_559

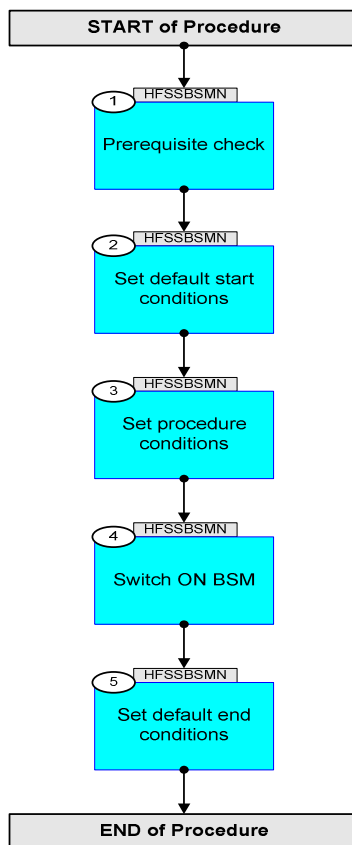
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
07/08/2007		1	Created	R. Biggins	
			Update due to initial testing against simulator:□ - TCs updated due to new DB□		
15/01/2008		2	- Bus profile selection TC added	R. Biggins	

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Procedure Flowchart Overview

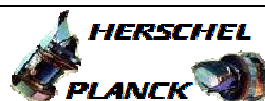


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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
HFSBSMN Switch ON BSM				
SSID :				
1		Prerequisite check		Next Step: 2
		Verify Telemetry MODE SM00M500	= REDY	AND=SA_6_559
		Verify Telemetry CHOPSENSPWR SMC0W515	= OFF	AND=SA_6_559
		Verify Telemetry JIGGSENSPWR SMJ0W515	= OFF	AND=SA_6_559
2		Set default start conditions		Next Step: 3
	ET=+00.00.00 UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE ---- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- SSID : 370	SC001500 80010001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- SSID : 370	SC003500 1 <hex>	

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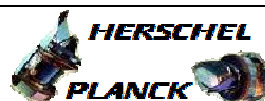
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC000500 B0000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80020001 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 1 <hex>	
3		Set procedure conditions		Next Step: 4
	ET=+00.00.01 UT=+00.00.01	RESET_DRCU_COUNTERS RESET_DRCU_COUNTERS TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD00505	
	ET=+00.00.01 UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC000500 OBS_ID	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80000000 <hex>	
4		Switch ON BSM		Next Step: 5

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	Execute Telecommand SelectActiveSCBP Command Parameter(s) : SCBP DH049160 TC Control Flags : GBM IL DSE --Y -- -- SSID : 10	DC819160 SCBP_03	
		Verify Telemetry BSW_SDB_ActProf DEF5F160	= 3 <dec>	AND=ZAZ08999
	ET=+00.00.01 UT=+00.00.01	CLEAR_HK_REPORT CLEAR_HK_REPORT Command Parameter(s) : PCKTID_CLEARHK SPR6N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SCR01500 301 <hex>	
	ET=+00.00.01 UT=+00.00.01	CLEAR_HK_REPORT CLEAR_HK_REPORT Command Parameter(s) : PCKTID_CLEARHK SPR6N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SCR01500 301 <hex>	
	ET=+00.00.00 UT=+00.00.00	DEFINE_NEW_HK_REPORT DEFINE_NEW_HK_REPORT Command Parameter(s) : HKPCKTID_DEFINENEWHK SPR0N500 HKSID_DEFINENEWHK SPR1N500 HKINTERVAL_DEFINENEWHK SPR2N500 HKREPEAT_DEFINENEWHK SPR3N500 TABLEID_DEFINENEWHK SPR4N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SCR00500 301 <hex> 301 <hex> 3E8 <hex> 1 <hex> 1 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SC003500 0 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 81000001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC002500 201 <hex>	
		Verify Telemetry MODE SM00M500	= BSM_ON	AND=SA_6_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetCSensorPwr SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90C00001 <hex> 0 <hex> (Def)	
		Verify Telemetry CHOPSENSPWR SMC0W515	= ON	AND=SA_6_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to SetJSensorPwr SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91400001 <hex> 0 <hex> (Def)	
		Verify Telemetry JIGGSENSPWR SMJ0W515	= ON	AND=SA_6_559

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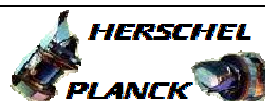
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetChopLoopMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90C20003 <hex> 0 <hex> (Def)	
		Verify Telemetry CHOPLOOPMODE SMC0M515	= NO_SENSOR_BEMF	AND=SAC0_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to SetJigLoopMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91420003 <hex> 0 <hex> (Def)	
		Verify Telemetry JIGGLOOPMODE SML3M515	= NO_SENSOR_BEMF	AND=SAJ0_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetCFeedForwardGain SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90CD0770 <hex> 0 <hex> (Def)	
		Verify Telemetry CHOPFFGAIN SMC0N515	= 0770 <hex>	AND=SAC0_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to SetJFeedForwardGain SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 914D0F6E <hex> 0 <hex> (Def)	
		Verify Telemetry JIGGFFGAIN SMJ0N515	= 0F6E <hex>	AND=SAJ0_559

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetChopTargetPosition SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90C38000 <hex> 0 <hex> (Def)	
		Verify Telemetry CHOPPOSN SMC0P515	= 8000 <hex>	AND=SAC0_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to SetJigTargetPosition SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91438000 <hex> 0 <hex> (Def)	
		Verify Telemetry JIGGPOSN SMJ0P515	= 8000 <hex>	AND=SAJ0_559
5		Set default end conditions		Next Step: END
	ET=+00.00.00 UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80000000 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP TC Control Flags : SSID : 370	SET_OBS_STEP SP03N500 GBM IL DSE --- -- --- 0 <hex>	SC003500
	ET=+00.00.00 UT=+00.00.00	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID TC Control Flags : SSID : 370	SET_BBID SP01N500 GBM IL DSE --- -- --- 80030001 <hex>	SC001500
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP TC Control Flags : SSID : 370	SET_OBS_STEP SP03N500 GBM IL DSE --- -- --- 1 <hex>	SC003500
	ET=+00.00.00 UT=+00.00.00	SET_OBSID Command Parameter(s) : OBSERVATION_ID TC Control Flags : SSID : 370	SET_OBSID SP00N500 GBM IL DSE --- -- --- B0000000 <hex>	SC000500
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP TC Control Flags : SSID : 370	SET_OBS_STEP SP03N500 GBM IL DSE --- -- --- 0 <hex>	SC003500

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE ---- SSID : 370	SC001500 80000000 <hex>	
End of Procedure				